

Driving Customer Satisfaction through Effective Logistics Management: Evidence from Retail Stores in Mogadishu, Somalia

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Abstract. This study investigates the relationship between logistics management and customer satisfaction in the retail stores of Mogadishu, Somalia. Specifically, it examines the impact of inventory management, lead time management, and transportation management on customer satisfaction. A descriptive research design was employed, using survey data from 73 retail stores in Mogadishu. The results, analyzed using partial least squares structural equation modeling (PLS-SEM), reveal that all three dimensions of logistics management have significant positive effects on customer satisfaction. Lead time management has the strongest impact, followed by inventory management and transportation management. The findings highlight the importance of effective logistics management for enhancing customer satisfaction in the retail industry, particularly in the context of Mogadishu's dynamic market environment. The study contributes to the limited research on logistics management in this setting and offers practical insights for retail managers seeking to improve store performance through customer satisfaction. Limitations and directions for future research are discussed.

Keywords: Logistics management, Inventory management, lead time, transportation management, customer satisfaction and retail stores.

1. Introduction

Since the "customer service revolution" emerged 25 years ago, corporate research has prioritized consumer satisfaction. Collaborations amongst companies, consultants, and operations management sought to find methods of continuously meeting customer needs. Striking a balance between cost, quality, and customer happiness was the main focus of attempts to counter rising product costs in the 1950s and 1960s (Ghoumrassi & Tigu, 2018). A high turnover rate, client retention rates, and enhanced income creation for the company are all consequences of poor logistics management. Customers' perceptions and loyalty are enhanced by well-managed logistics. (Salome et al., 2022a).

Market globalization has affected organizational operations and general lifestyle, particularly logistical management. Businesses now strive for worldwide markets and are not satisfied with domestic ones alone. Globally, the traditional customer focus has expanded, and logistical growth is now necessary both internally and outside. To thrive, a vast majority of firms prioritize offering top-notch customer service. Of course, logistics and transportation have always been at the core of the production, distribution, and storage of goods. However, in the business and economic context, the management of logistics and transportation has only lately started to be acknowledged as crucial responsibilities. The importance of logistics management has grown over time, and it now plays a major role in the success of several activities and businesses. (Report et al., 2008).

For today's supply chain-oriented networks, it is crucial to have both a proper grasp of the integrated nature of logistics and a strategic perspective on logistics management. The majority of managers lack the pertinent expertise or information necessary to have this perspective. In addition to the quick advancements in technology, globalization, the impact of top-tier ideology, the expansion of the information economy, and the shifting nature of organizations have all had an impact on logistics and transport management. (Darco et al., 2018)

The efforts of logistics experts are crucial to the expansion and prosperity of any retail organization, including stores. Logistics effectiveness is perceived as both an operational task and a strategic element that is critical to customer satisfaction. Every customer has expectations, and if those expectations are not fulfilled, they will eventually become unsatisfied. When this effect multiplies, the buyer will go and shop at a different retail competition, forgetting about their previous displeasure. According to Jennet (2011), one of the main goals of the business is to satisfy its customers, who are among its most important stakeholders. In addition, fulfilling their needs is a primary concern for management, and businesses give this area a lot of attention because of its significance. (Umair et al., 2019).

A component of logistics management is controlling the flow of materials from the place of origin to the site of final usage (Salome et al., 2022b). In order to achieve competitive advantage, optimal investment, and high standards of customer service, it integrates supply chain operations (Report et al., 2008). In order to effectively and efficiently meet customer needs, logistics management, also known as supply chain management, plans, implements, and oversees the forward and backward movement and retention of goods, services, and related information between the point of origin and the site of consumption. (Delfi et al., 2021a)

Customers are happy when services meet or exceed their expectations, which is crucial for retention. Client satisfaction leads to recommendations and positive word-of-mouth advertising (Ojo, 2010). Customer satisfaction and the factors of logistics management (inventory management, lead time management, and transportation management) are closely related. Customer satisfaction is directly impacted by effective inventory and lead time management, which guarantees product availability and prompt delivery. Transportation management influences the dependability and speed of product delivery by improving the supply chain's overall efficiency. In the retail setting, satisfying customers, improving their experience, and eventually raising customer satisfaction all depend on the smooth integration of these logistics components (Umair and others, 2019). Mogadishu was chosen because of

its recent prosperity and stability, which has made it significant from both a geopolitical and economic standpoint. Rapid urbanization and shifting consumer preferences have created unique market dynamics in the city, which make it an interesting place to research the connection between customer happiness and logistics management. This study attempts to fill a research gap by examining the logistical opportunities and problems that Mogadishu faces as a result of its geopolitical setting. These issues have not been extensively discussed in previous literature. The research endeavors to offer pragmatic perspectives customized for Mogadishu's retail industry, so augmenting the field's overall comprehension.

The connection between logistics management and customer satisfaction has been the subject of much research, but there is a noticeable vacuum in the literature when it comes to the particular dynamics that occur within the retail industry in Mogadishu, Somalia. Present research frequently offers broad perspectives, ignoring the unique obstacles and prospects that businesses in this area face. Research on the complex relationships between lead time, inventory control, and transportation and consumer satisfaction in Mogadishu's retail environment is particularly lacking. The research that is currently accessible does not provide a thorough analysis of how these crucial logistics elements help or impede consumer satisfaction in a market with particular geopolitical and economic characteristics. In order to fill this research gap, this study offers a detailed analysis of logistics performance and how it directly affects consumer satisfaction in Mogadishu's retail establishments. The research aims to bridge a gap in the body of knowledge and advance a more thorough understanding of logistics management in the Mogadishu retail industry by examining these particular features and providing insightful analysis specific to the local situation. In the retail industry of Mogadishu, meeting customer demands for timely delivery, cost-effectiveness, and inventory availability is a constant challenge. Logistics plays a crucial role in determining the route and medium for efficient and on-time product delivery. Delays or price fluctuations can lead to customer dissatisfaction and a shift to competitors. Given that increasing profitability is a primary organizational goal, addressing logistics performance becomes imperative to satisfy customers and enhance business profitability.

The purpose of this study is to thoroughly investigate the relationship between logistical performance and customer satisfaction in the retail industry in Mogadishu. It is guided by precise and quantifiable objectives. First, the study aims to provide a detailed understanding of the temporal dynamics influencing consumer perceptions by quantitatively evaluating the impact of lead time on customer satisfaction. Second, the study intends to clarify the critical role that stock control plays in improving the retail experience by examining the precise impact of inventory management on consumer satisfaction. In conclusion, the study aims to measure the concrete impacts of transportation on customer satisfaction, highlighting the vital significance of an effective delivery system in fulfilling and surpassing customer demands. The well-crafted objectives guarantee a focused, comprehensive, and expert examination, offering significant contributions to academic discussions and real-world implementations in the retail sector. The study's objectives have been carefully designed to illuminate key areas of logistical performance and how they relate to customer satisfaction. First, the research attempts to comprehend temporal dynamics in Mogadishu's retail shops by statistically evaluating the effect of lead time on consumer satisfaction. This satisfies the requirement for research on the impact of prompt service delivery on customer satisfaction in a changing market. Second, the study elucidates the critical function that stock control plays in enhancing the retail experience by examining the impact of inventory management on satisfaction levels. By offering empirical insights into the ways in which inventory management affects customers' perceptions of product availability, this project closes a gap in the literature and advances our knowledge of the variables influencing consumer satisfaction in Mogadishu's retail industry.

To achieve the study's objectives, the following research questions are addressed:

- What is the quantitative impact of lead time on customer satisfaction in Mogadishu's retail stores?
- How does inventory management, quantifiably, affect customer satisfaction in Mogadishu's retail stores?
- To what extent does transportation, in measurable terms, influence customer satisfaction in Mogadishu's retail stores?

The implications of the research findings extend beyond academic discourse; they offer valuable insights for Mogadishu's retail sector and enterprises functioning within the broader service industry. Understanding how logistics management significantly impacts customer satisfaction can help retail organizations in Mogadishu strategically improve their lead time procedures, transportation systems, and inventory control. They might increase client happiness, gain a competitive edge, and streamline procedures with this knowledge. Organizations in the service industry can also profit from the study's results on supply chain management, as they can modify their logistical strategies to meet evolving customer wants and expectations. As such, the study serves as a helpful guide, providing businesses with the knowledge they require to make choices that will improve customer satisfaction, operational efficiency, and, ultimately, business profitability.

2. Literature Review

The literature on the effect of logistics performance on customer satisfaction in Mogadishu, Somalia, retail outlets is presented in this chapter. The literature will pay particular attention to the functions of lead time, transportation, inventory, and logistics management. These literary works have been extracted from a variety of books, journals, papers, and studies pertaining to the same issue that is being looked into.

2.1. Expectation Disconfirmation Theory

The EDT, which Oliver created for the first time in 1980, is regarded as the most practical theoretical framework for assessing customer happiness. The EDT is widely employed to evaluate customer satisfaction levels for a range of goods and services. According to the theory, customers purchase goods knowing exactly what they hope to achieve from them. As a result, after using the goods or services, the outcomes are compared to what was initially anticipated (Serenko & Stach, 2009).

When examining the relationship between logistics management and consumer satisfaction in the context of Mogadishu's retail establishments, the Expectation Disconfirmation Theory (EDT) provides a useful lens. Customers' expectations about lead times, transportation, inventory management, and other logistics services, as well as their efficiency and quality, are what make the EDT so important. Customers have certain expectations going into transactions, and the degree to which these expectations are met or surpassed affects how satisfied they are, according to the notion. In the field of logistics management, lead time management, prompt transportation, and good inventory control are essential elements that have a direct influence on consumer expectations. This study's use of the EDT enables a nuanced investigation of how the logistics variables under examination support or contradict customer expectations, consequently influencing overall happiness in the retail environment of Mogadishu, Somalia. The goal in integrating EDT into our research is to clarify how customers' overall satisfaction levels are affected when there are gaps between their expectations and real experiences with logistical processes. According to EDT, customer satisfaction is defined as how well a service or product actually meets or exceeds the expectations of the customer. An understanding of these expectation-disconfirmation theory is essential for businesses to manage customer satisfaction in Mogadishu's retail industry, where logistical challenges are common. Thus, our study aims to both empirically investigate

the applicability of EDT in the context of Mogadishu retail landscape and to acknowledge its significance.

2.2 Definitions of the key Constructs

2.2.1 Logistics Management

Logistics management, also called supply chain management, designs, deploys, and manages the forward and backward flow and retention of products, services, and related information between the point of origin and the point of consumption to effectively and efficiently meet consumer needs. In short, logistics management focuses on preparations and schemes that realize the planned flow of goods and information throughout the industry, because Supply Chain Management prioritizes the flow of goods between companies from upstream to downstream (from companies to stores) and involves suppliers to customers. (Delfi et al., 2021a)

When logistics are fully integrated from source to destination, they ensure the effective movement of both completed goods and raw resources (Emil, Liviu, and Irina) (2010). Innovative customer service techniques, flexibility, and demand forecasting are just a few of the organizational behaviors that are crucial to logistics management. Focus is placed on a coordinated and integrated logistics systems approach that aims to satisfy customers, as opposed to the quickest conveyance or stock reduction. (Salome et al., 2022b).

2.2.2 Inventory

One of the most important terms in supply chain management (SC) is inventory management, as noted in the study by Serman and Dogan (2015). It also stated that stock, which includes all kinds of goods, including work-in-progress and finished goods, is kept at a level that enables us to offer the most services at the lowest feasible cost (Kanja & Mwangangi, 2018).

The management of the inventory affects the company's viability and future prospects, according to Silver et al. Inventory costs comprise keeping, shipping, and administrative charges. Customer dissatisfaction and significant expenses for the business will result from improper handling and planning of inventory. (Keller et al., 2002). The costs associated with maintaining inventories always outweigh the benefits, according to Chambers and Lacey (2011). The products' availability when needed is a benefit, but the opportunity cost—the money required for ordering, buying, and keeping the inventory—is a drawback. (Lagat et al., 2016). The managers are in charge of determining the right amount of inventory for the company, taking into account a number of variables such as sales, the rate at which sales can be turned into cash, the quantity of inventory that can be acquired, etc. Furthermore, a 2008 study by Shim and Siegel found that efficient inventory control lowers inventory levels, which in turn leads to lower expenses, less inventory, and increased profitability (Ltifi & Gharbi, 2015).

A 2015 study by Serman and Dogan states that providers receive orders and must complete them; else, delivery times would grow longer and the caliber of the services provided to clients will gradually decline (Kanja & Mwangangi, 2018). In the event that inventory, safety stock at buyers' facilities, accurate forecasting, and a reduction in lead times for the commodities are all deemed required, Eltantawy et al. (2015) assert that supply chains in all retail sectors and organizations ought to be linked. (Umair et al., 2019).

H1: Inventory Management significantly influences customer satisfaction in Mogadishu's retail sector.

2.2.3 Lead Time

The lead time is the amount of time it takes to receive your order after it is placed. The product can be made to order or off the shelf, depending on its nature. Planning, supply chain management, logistics services, and the distance to suppliers and customers are some of the elements that affect lead time. If demand is consistent and delivery is predictable, a lengthy lead time might not always be a problem. Even when the buyer knows exactly when the items will arrive, long lead periods are expensive if there is uncertainty about future demand. Running out of supplies has expenses attached to it, such as missed sales opportunities and potential clientele loss if future demand is not projected accurately. If projected demand is too high, excess supply must be discounted. When there are more product variations and a longer lead time, more inventories are also needed. It's also critical to keep in mind that lead time competition is a fluid idea. Some businesses must catch up to others that are able to reduce lead times in order to avoid being penalized with lower rates or, worse yet, excluded from the bidding process. Lead time is not a problem if the customer is told about the delivery, provided that the demand is likewise known. In case of unknown demand, lead time still incurs costs. If forecasting is done poorly, lead time can be a problem since products may not be on the shelf, which could result in lost revenue and indirect sales. (Umair et al., 2019).

H2: Lead Time Management has positive effect on customer satisfaction in the retail stores of Mogadishu.

2.2.4 Transportation

Moving people and goods between locations and the various means in which this movement is accomplished are together referred to as transportation. The ability to transport large quantities of people or goods quickly and safely across long distances has grown, and this ability has been a crucial sign of civilization and, more especially, technological growth. The company's other supply chain partners as well as internal functional departments rely heavily on the ability of logistics to bridge interfaces. When a business's logistics and marketing teams collaborate, they can provide unique and varied products and services to meet the needs of consumers. (Umair et al., 2019).

As Mentzer et al. (2001) also noted in the same study, adding logistics to production reduces costs and expenses while retaining high-quality customer service. Combining cost-cutting measures with top-notch customer service leads to high levels of customer satisfaction. The second component is the management of logistics in conjunction with suppliers, distributors, and other supply chain participants. As a result of this collaboration, the customer gains value and benefits are shared. Thus, an inherent component of supply chain management is logistics. According to a 2005 study by Samli et al. titled "Cognitive Evaluation of Services Experience," retailers' internal and external logistics—which cover both—play a key role in customer satisfaction as the only entity bridging the gap between the company and its clients. Delivery circumstances, product availability, and timely availability are all significant factors in value generation and customer satisfaction, according to a 2001 study by Mentzer et al. Every one of these elements also adds to the criteria that consumers are assessed against. According to the same Mentzer et al. study from 2001, one of the components that adds value for customers is logistics, which allows them to save time and have a more convenient and easy engagement with retail services. (Wu et al., 2017).

H3: Transportation Management has positively influence customer satisfaction in Mogadishu's retail outlets.

2.2.5 Customer Satisfaction

The capacity of a company to both meet and exceed its clients' expectations is known as customer satisfaction. It changes based on the circumstances and the goods or services. A consumer may be satisfied by an experience—whether good or bad—a choice of products or services, a salesperson, the company's location, a service provider, an attribute, or any combination of these. Because satisfaction is "too ambiguous an idea to serve as a useful norm," some academics absolutely avoid using it as a quantitative goal. Instead, they focus on accurately assessing the customer's complete experience and their overall impression of the business or service contact (Mfwaya, 2013).

The phrase "customer satisfaction" refers to a person's subjective assessment of how satisfied or unsatisfied they were with the services they received from a company in comparison to their expectations. Because they feel that maintaining satisfied clients is crucial to their business, service providers typically give customer satisfaction a higher priority. When customer satisfaction is strong, positive marketing strategies result in word-of-mouth recommendations to friends, repeat product purchases, and frequent store visits; on the other hand (Delfi et al., 2021b) complaints have been linked to poor customer satisfaction. Satisfied customers are more likely to remain loyal to the business and return in the future. Customer pleasure can be thought of as either transaction-specific or cumulative satisfaction. Transaction-specific satisfaction gauges a customer's level of happiness with a specific business based on their interactions with it. The term "cumulative satisfaction" describes how satisfied a customer is with their entire shopping experience from beginning to conclusion (Eric Jepherson et al., 2020).

The final point made in the literature review is how important logistics are in impacting customer satisfaction. Delivering value and meeting customer expectations involves lead time, inventory, logistics management, and transportation. Because of their interdependence, these elements highlight the need for a holistic plan to raise customer satisfaction and organizational performance as a whole. The conceptual framework offers structured assistance for analyzing these processes in the Mogadishu retail scenario, and empirical research emphasizes the significance of efficient logistical methods. The study aims to elucidate the intricate connections between consumer satisfaction and logistical performance going forward, offering valuable insights for organizational endeavors in the dynamic retail landscape.

2.3 Empirical Literature

All studies and business experts agree that logistics management is made up of all the parties (manufacturers, marketers, suppliers, transporters, warehouses, retailers, and even customers) that are directly or indirectly involved in meeting a customer's need. The main objectives of the logistics department are to improve customer satisfaction and overall organizational performance through improved delivery of goods or services. utilizing a cheap raw material, selecting the most affordable means of transportation, producing large quantities with a small workforce, and spending little for delivery and storage.

2.4 Theoretical models Framework

This study examines the relationship between logistics management and customer satisfaction in the retail sector of Mogadishu using the Expectation Disconfirmation Theory (EDT) as its conceptual framework. The independent variable is logistics management, which includes lead time management, transportation, and inventory control. By looking at how preexisting expectations and actual results in the logistical operations align or disagree, the EDT is used to evaluate customer satisfaction.

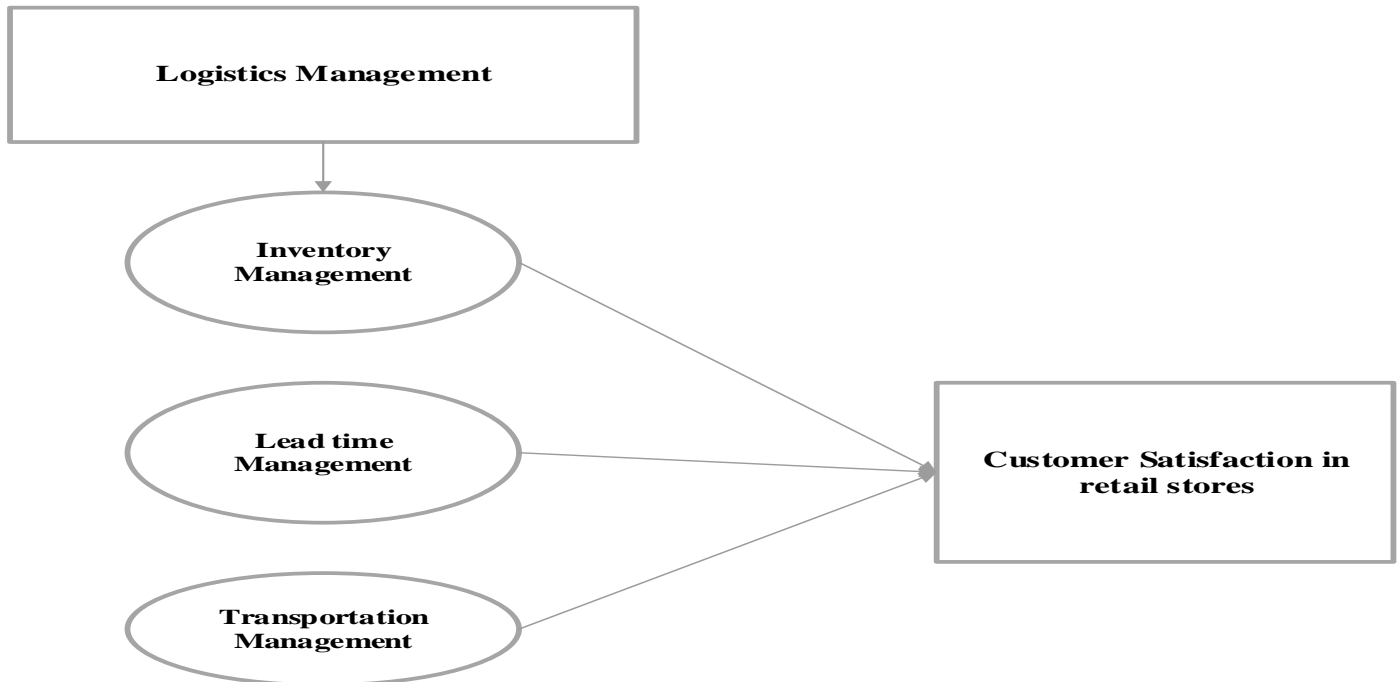


Figure 1. Theoretical mode.

3. Methodology

The study examines the relationship between logistics management and customer satisfaction using a descriptive research methodology and quantitative analysis based on survey data. The target demographic comprises retail establishments in Mogadishu, Somalia. Due to the area's turmoil and security challenges, obtaining an accurate count of retail outlets was challenging. Therefore, the sample size of the target population was determined using Cochran's formula, considering the desired degree of precision, degree of confidence, and known fraction of the attribute present in the population. Following participant selection through nonprobability or purposeful sampling, a sample size of 73 retail stores was determined to be representative of the target population. Primary data was collected through four-section questionnaires designed for supply chain, procurement, and logistics officers. The questionnaire items were structured to measure various aspects of logistics management and customer satisfaction, adapted from (Darko et al., 2018). A 5-point Likert scale was utilized as the response format for questionnaire items. Legal permission was obtained before initiating data collection operations to ensure compliance with ethical standards. The validity and reliability of the research instrument were ensured through a rigorous evaluation process. The questionnaire underwent expert review to assess content validity and was piloted with a small sample to assess reliability and identify any potential issues with clarity or comprehension. Feedback from the pilot study was used to refine the questionnaire and ensure its appropriateness for the study's objectives. Data analysis was conducted using Smart-PLS-4, a software tool for Partial Least Squares Structural Equation Modeling (PLS-SEM). PLS-SEM was chosen due to its suitability for analyzing complex relationships among multiple variables, particularly in situations where the sample size is relatively small. The analysis involved regression analysis, mean, standard deviation, and percentages to explore the relationships between logistics management and customer satisfaction. Ethical considerations were paramount throughout the research process. Data collection procedures were designed to uphold openness, privacy, and confidentiality principles. Participants were informed of the purpose of the study and provided informed consent before participating. Additionally, steps were taken to ensure the anonymity of participants and protect their sensitive information. Several limitations were acknowledged in this study. Firstly, using

a survey questionnaire as the primary data collection tool may limit the depth of insights obtained. Secondly, achieving complete accuracy in survey-based research is challenging due to the variable nature of human behavior. Furthermore, the study's scope is limited to the retail food industry in Mogadishu, which may restrict the generalizability of the findings to other regions or industries.

4. Findings and Discussions

This chapter explores the thorough procedure used to guarantee the reliability and relevance of the study results. The study obtains complex insights into the relationship between logistics management and customer satisfaction in Mogadishu's retail sector with a diversified sample of 73 participants across various management levels. The 18-item structured questionnaire proved to be a reliable tool for collecting data in an organized manner. The deliberate selection of SmartPLS-4 for analysis enhances the study's rigor, facilitating a smooth alignment with its complex aims and supporting internal validity. This methodical methodology not only strengthens the findings' credibility but also emphasizes how applicable and transferable they are to the larger retail scene in Mogadishu.

The dependent variable, customer satisfaction, is strongly explained by the independent variables of the research study, inventory management, lead time management, and transportation management, as shown by the PLS-SEM model with factor loadings in Figure 4.2.1, which has an R² value of 0.798 (79.8 percent). The remaining 20.2%, or 0.202, can be explained by other factors. Table 4.2.4 With a correlation value of 1.00, latent variable correlations show a strong positive relationship between inventory management and the dependent variable, customer satisfaction. Inventory management has a coefficient value of 0.211, as shown in figure 4.1 for the PLS-SEM model and table 4.2.5 for the structural model estimates (95% confidence interval). This suggests that the dependent variable will increase by 0.211 (22.1 percent) for every unit increase in inventory management and control, and that a drop will have the same effect.

The second independent variable and the dependent variable, customer satisfaction, have a strong positive correlation ($r = 0.878$), much like the first independent variable in the research study, lead time management. Lead time management's coefficient value is 0.63, meaning that a one-unit increase in collaborative decision making will result in a 63 percent increase in the dependent variable. These results can also be seen in Table 4.2.5: Structural model estimates (95 percent confidence interval) and Figure 4.2.1: PLS-SEM 29 model with factor loadings.

Transportation management, the third of the three independent factors, has a positive correlation with the dependent variable, customer satisfaction, as shown in Table 4.2.4. Latent variable correlations With a value of 0.69, the correlation between the two variables is still quite high. In table 4.2.5, structural model estimates (95 percent confidence interval), and figure 4.2.1, PLS-SEM model with factor loadings, the coefficient value for transportation management is 0.134. This indicates that there will be a 13.4% improvement in customer satisfaction for every unit increase in material handling. The results are important because the t-statistics are 2.411, 5.57, and 1.97 for the three logistics management independent variables (inventory, lead time, and transportation), and the Pa-values are 0.016, 0.000, and 0.021 for each one. Demonstrating that the independent and dependent variables are significantly correlated. The strong relationship between inventory control and customer satisfaction shows that it was challenging for one to ignore the other. But since every change in one also affects another, the impacts of inventory management on customer satisfaction are more significant. There are numerous other effects as well; of these, 79.8% were mutually reinforcing, indicating that the other 20.2% had an impact on other parameters.

Table 1: profile of respondent

	Distribution	Frequency	Percentage %
GENDER	Male	35	47.9
	Female	38	52.1
EDUCATIONAL QUALIFICATION	Bachelor	30	41.1
	Master	27	37
	Decorate	16	21.9
AGE OF RESPONDENTS	21-30	43	58.9
	31-40	19	26
	Above 41	11	15.1
MARTIALSTATUS	Single	36	49.3
	Married	26	35.6
	Divorced	11	15.1
YEARS OF EXPERIENCES	less than 1 year	27	37
	2-5 years	36	49.3
	5-10 years	10	13.7

Source: Primary data, 2023

4.1 Data Presentation and Analysis

For data analysis, we selected SmartPLS-4 because it is well-suited to managing intricate logistics management and customer satisfaction relationships. Key features of the software were its flexibility, ease of use, and compatibility with our small sample size (73 participants). The capacity of SmartPLS-4 to model formative and reflective measurement models was in perfect alignment with our research objectives, making our analytical results more credible and dependable. This intentional decision guarantees a solid strategy for examining the complex relationships in our research.

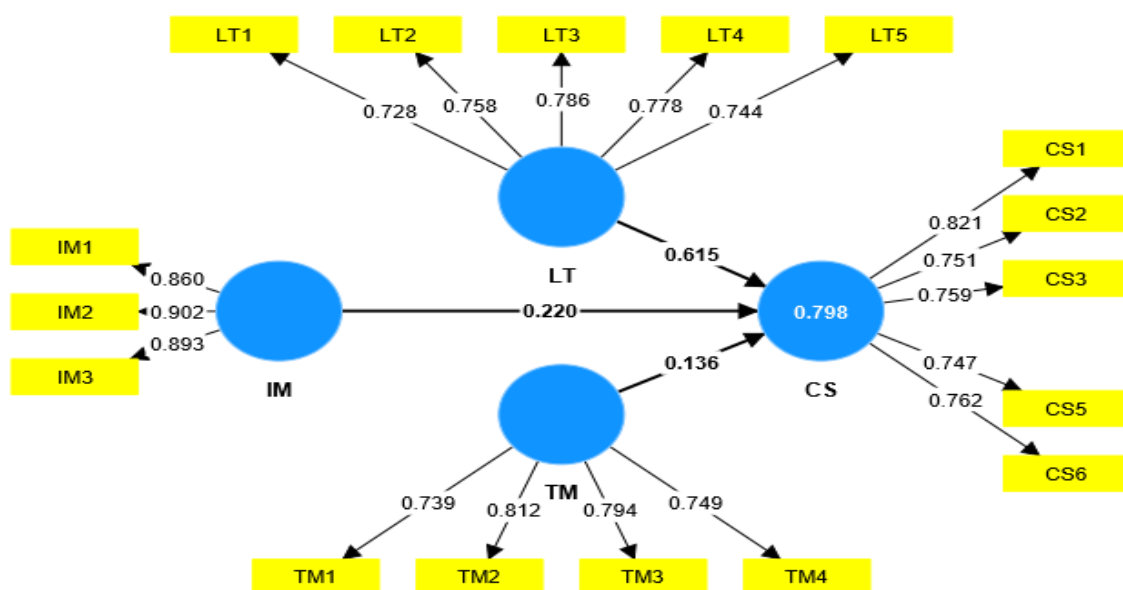


Figure 4.2.1 PLS-SEM model with factor loadings

Measurement Model Analysis

Internal consistency assessment and the evaluation of convergent and discriminant validity are the two main processes involved in evaluating a reflective measurement model, as constructs are based on reflective measurement (Hair et al., 2012).

Table 4.2.2 Outer Loadings

Variables	Items	Loadings	C.A	CR	AVE
Customer satisfaction	CS1	0.821	0.827	0.878	0.8
	CS2	0.751			
	CS3	0.759			
	CS5	0.747			
	CS6	0.762			
Inventory Management	IM1	0.86	0.863	0.916	0.784
	IM2	0.902			
	IM3	0.893			
Lead Time management	LT1	0.728	0.819	0.872	0.76
	LT2	0.758			
	LT3	0.786			
	LT4	0.778			
	LT5	0.744			
Transportation Management	TM1	0.739	0.779	0.856	0.799
	TM2	0.812			
	TM3	0.794			
	TM4	0.749			

Source: Primary data, 2023

Table 4.2.4 Latent variable correlations

Latent Variable	Customer satisfaction	Inventory Management	Lead Time management	Transportation Management
Customer satisfaction	1			
Inventory Management	0.744	1		
Lead Time management	0.878	0.744	1	
Transportation Management	0.69	0.485	0.727	1

Source: Primary data, 2023

The relationships between the independent components of logistics management and the dependent variable—the Customer Satisfaction of Mogadishu's retail sector—are explained by the correlations between latent variables in Table 3.0 (Inventory Management, Lead Time management, and Transportation Management). With values of 0.744, 0.878, and 0.69, respectively, for the independent variables Inventory Management, Lead Time Management, and Transportation Management about the dependent variable, the results show significant and favorable correlations in the Customer satisfaction measures.

4.2 Structural Model Assessment

Both direct and moderation hypotheses are included in the second part of the study, which focuses on testing the hypotheses. First, specific hypotheses were looked at, as shown in Table 5. A p-value of 1.96 was used to decide whether to accept or reject the hypotheses. Relationships that have a t-value of less than 1.96 are rejected, and those that have a t-value of more than 1.96 are approved. All of the correlations in Table 5 have t-values over 1.96, indicating a significant connection. All of the direct hypotheses (H1, H2, and H3) are accepted.

Table 4.2.5

Path	β Coefficient	T statistics	P values	result
Inventory management -> Customer Satisfaction	0.211	2.411	0.016	yes
Lead time management -> Customer Satisfaction	0.63	5.57	0	yes
Transportation management->Customer Satisfaction	0.134	1.97	0.021	yes

Source: Primary data, 2023

4.3 Findings:

- Inventory control showed a strong influence (coefficient = 0.211) and a good association (0.744) with customer satisfaction.
- Lead time management significantly impacted customer satisfaction (coefficient = 0.63), and there was a strong link (0.878) between the two.
- Customer satisfaction was found to have a significant impact (coefficient = 0.134) and a positive correlation (0.69) with transportation management.
- Customer satisfaction, the dependent variable, could be significantly explained by inventory management, lead time management, and transportation management, according to the R² value of 79.8%.

4.4 Discussions

This study looked into the relationship between logistics management and customer satisfaction in Mogadishu, Somalia's retail outlets. The purpose of this study was to ascertain how lead time, shipping, and inventory control affected Mogadishu retail store patron satisfaction. In order to collect data using descriptive analysis, 73 participants—including top management, middle management, junior management, and other stakeholders—completed a questionnaire comprising 18 statements. SmartPLS-4 was used for analysis.

Numerous subjects related to logistical management and customer satisfaction were investigated as a consequence of the survey. Additionally, we extended an invitation to all interested parties to take part in this poll. We discussed how these points strengthen our relationship as partners and increase client satisfaction. The participants in the chat reached a consensus and felt satisfied with each other on the following subjects:

Participants concurred that customer satisfaction is impacted by logistics management, suggesting that inventory management is happy. The last factor that may have an impact, according to the respondents, is transportation management. Lead time management is also thought to have an impact. The fact that the respondents acknowledged customer satisfaction implies that the duration of time it takes for customers to comply was a crucial factor. Client satisfaction is high because they have a strong incentive to complete their demands by the deadline. In a separate study titled Logistics Management

Practices and Organizational Performance of Dairy Firms in Kenya, Kenyan companies used the exact same goals to evaluate the effect of logistics management (inventory management, lead time management, and transportation management) on customer satisfaction. The study's R^2 values of .485; .643; and .885 show that lead time, transportation, and inventory management all positively affect customer satisfaction (K. Solomon 2016). Our study expands on past research findings and provides new insights into the unique retail business setting of Mogadishu, thereby deepening our understanding of the complex links between logistical management and customer happiness. By utilizing well-established theoretical frameworks like Expectation Disconfirmation Theory, our study places logistics management dynamics in the context of Mogadishu, Somalia's distinct socioeconomic environment. Few studies have looked at these dynamics in the context of developing economies with unique geopolitical challenges, despite the overall relationship between logistical methods and customer satisfaction having been studied in the past. By presenting empirical data on the effects of lead time, shipping, and inventory control on customer satisfaction in Mogadishu's retail shops, our study adds to the body of current work. By quantitatively analyzing data collected from diverse stakeholders, including top, middle, and junior management, our research offers a comprehensive understanding of the factors influencing customer perceptions and preferences. In doing so, we not only validate but also extend the findings of previous studies conducted in different geographical and cultural contexts.

5. Conclusion and Recommendation

The chapter's conclusion, suggestions, and areas in need of additional study are included. Researchers advise aspiring researchers to concentrate on these topics.

5.1 Conclusions

This study aimed to investigate the relationship between logistics management and customer satisfaction in the retail stores of Mogadishu, Somalia. The findings reveal that inventory management, lead time management, and transportation management all have significant positive impacts on customer satisfaction, with lead time management having the strongest effect. These results underscore the crucial role of effective logistics management in driving customer satisfaction and, ultimately, retail store performance. The study contributes to the literature by addressing a research gap on the specific dynamics of logistics management and customer satisfaction in Mogadishu's retail industry. The findings extend previous research by confirming the importance of logistics management dimensions in a novel context characterized by unique challenges and opportunities. The study also offers practical implications for retail managers in Mogadishu, suggesting that investments in inventory management systems, lead time reduction strategies, and efficient transportation networks can yield significant improvements in customer satisfaction. However, the study has several limitations that should be acknowledged. The cross-sectional design limits the ability to draw causal inferences, and the reliance on a relatively small sample from a specific geographic area may restrict the generalizability of the findings. Future research could address these limitations by employing longitudinal designs, expanding the sample to other regions or countries, and exploring additional variables that may influence the relationship between logistics management and customer satisfaction. Despite these limitations, the study makes a valuable contribution to the understanding of logistics management and customer satisfaction in the retail industry, particularly in the context of Mogadishu, Somalia. The findings provide a foundation for further research and offer actionable insights for managers seeking to enhance retail store performance through customer satisfaction.

5.2 Recommendation

The study recommends how critical it is to integrate transportation management into retail operations in order to increase overall cost effectiveness, competitiveness in the market, and lead time reduction. Retail store managers are urged to use route optimization software and form strategic alliances with reputable logistics companies to expedite transportation procedures, from the procurement of raw materials to the delivery of goods. Retail managers can improve their brand image and align with sustainability goals by minimizing their carbon footprint and reducing delivery times through the adoption of environmentally friendly transportation modes like bicycles and electric vehicles, as well as by investing in modern vehicle tracking systems.

Based on empirical data, this report offers Mogadishu, Somalia retail outlet managers particular strategies. The company's performance can be improved and smooth data sharing with clients and suppliers can be facilitated by integrating data management systems and utilizing data technology. Purchasing cutting-edge data frameworks is one way to maximize product offers and save operating expenses related to system changes. Additionally, store managers can monitor consumer preferences and habits by putting customer relationship management (CRM) software into place. This allows for customized marketing campaigns and raises customer satisfaction levels all around.

Furthermore, the data emphasize how important inventory management is to resource optimization and cost reduction. In order to avoid stock-outs and overstocking scenarios, retail establishments can gain from deploying advanced inventory systems, such as radio-frequency identification (RFID) technology, through real-time stock level monitoring. Retail managers can cut expenses associated with inventory holding and enhance cash flow management by implementing just-in-time (JIT) inventory policies and building cooperative partnerships with suppliers.

Long-term retail connections can be fostered and operational optimization further enhanced by asking customers for feedback and investing in staff training programs to improve customer service. Retail supervisors may enable frontline employees to provide outstanding customer experiences and foster customer loyalty by giving them thorough training on effective communication skills, product knowledge, and conflict resolution strategies. Retail managers can also find areas for improvement in their product offerings or service delivery by putting in place customer feedback systems like online surveys or suggestion boxes, which can provide them with important insights into client preferences. By implementing these tailored strategies based on empirical insights, retail outlets in Mogadishu can achieve higher customer satisfaction, operational efficiency, and sustainable growth, ultimately enhancing their competitiveness in the local market and driving long-term success.

5.3 Limitation of Study

Despite the constraints given by the sample group they picked, the researchers endeavored to select a sample population that is statistically representative and large enough to provide an accurate portrayal of the entire community. The fact that linguistic difficulties made it difficult to create the English questionnaire and led to participant misunderstandings is one drawback of the quantitative technique utilized in this study. The use of a cross-sectional design limits our ability to establish causal relationships between logistics management and customer satisfaction over time. It was challenging to extrapolate the survey's findings to other industries because it primarily examined retail spaces. Furthermore, the reliance on self-reported data introduces potential biases and measurement errors. Among the many other variables are the moderating and intervening variables. Mogadishu and its environs comprised the study's geographically targeted region. The choice of Mogadishu was based on its accessibility and handy location.

5.4 Further Research Studies

The focus of this study was on how logistics management affects customer satisfaction in retail establishments in Mogadishu, Somalia. To compare the results, more research is required on the impact of logistics management strategies on customer satisfaction in a variety of enterprises, such as manufacturing firms, service providers, and businesses. Further research is required, with an emphasis on alternate approaches to logistics management. This study examined approaches for information flow management, inventory management, transportation management, and warehouse management.

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Contributions By The Author

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Conflict Of Interest

The authors declare no conflicts of interest related to the research, including financial interests, affiliations, or personal relationships. These can affect how results are interpreted or whether they are published.

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